

Response to “The Supero-Septum Pedicle Mammoplasty: How Does It Perform?”

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We thank Dr Swanson¹ for his interest in our study.^{2,3} Dr Swanson has comparatively mentioned the before and after photos of the Supero-Septum Pedicle Mammoplasty (SSPM) technique (Figure 1) and the prevalent vertical technique (Figure 2) at the beginning of the discussion.¹ As acknowledged in our study² and frequently described by masters of mammoplasty,^{4,6} the outcome of mammoplasty is not solely dependent on surgical technique, although it is one of the significantly effective factors. Other efficacious factors include skin quality, tissue consistency, presence of pseudoptosis, and low or high breasts. Dr Hall-Findlay has elegantly explained the influence of low breasts or high breasts on the surgical outcome.^{6,7} It should be emphasized during the preoperative consultation that we cannot superiorly relocate the breast footprint to rationalize the patient's expectations. Naturally, as surgeons we should strongly differentiate the low-breasted and high-breasted patients and avoid comparing postoperative photos based on their nipple-to-sternal notch (N-SN) distance. As Hall-Findlay pointed out, the N-SN distance can be very misleading in low-breasted patients.^{6,7} Therefore, it may not be correct to compare the postoperative result of a pseudoptotic low-breasted patient with poor tissue quality and abundant skin striae (Figure 1)¹ with a high-breasted patient with good tissue quality (Figure 2).¹ The upper pole projection (UPP) is designed between the point of maximum postoperative breast projection (MPBP) and sternal notch, whereas in low-breasted patients, even the beginning of the breast may be lower than

this line; this is the main difference between patients with low and high breast footprints. Therefore, we should determine the UPP of the breast and not the chest wall solely in low-breasted patients. As is evident in Figure 1 of our patient,¹ there is no difference in preoperative UPP and postoperative UPP. On the contrary, we have operated high-breasted patients utilizing the SSPM technique and then analyzed 1 of them employing Dr Swanson's evaluation method with Canfield Mirror Version 7.5.6 software (Canfield Scientific Inc., Fairfield, NJ), and the MPBP and UPP were significantly increased. The interval between

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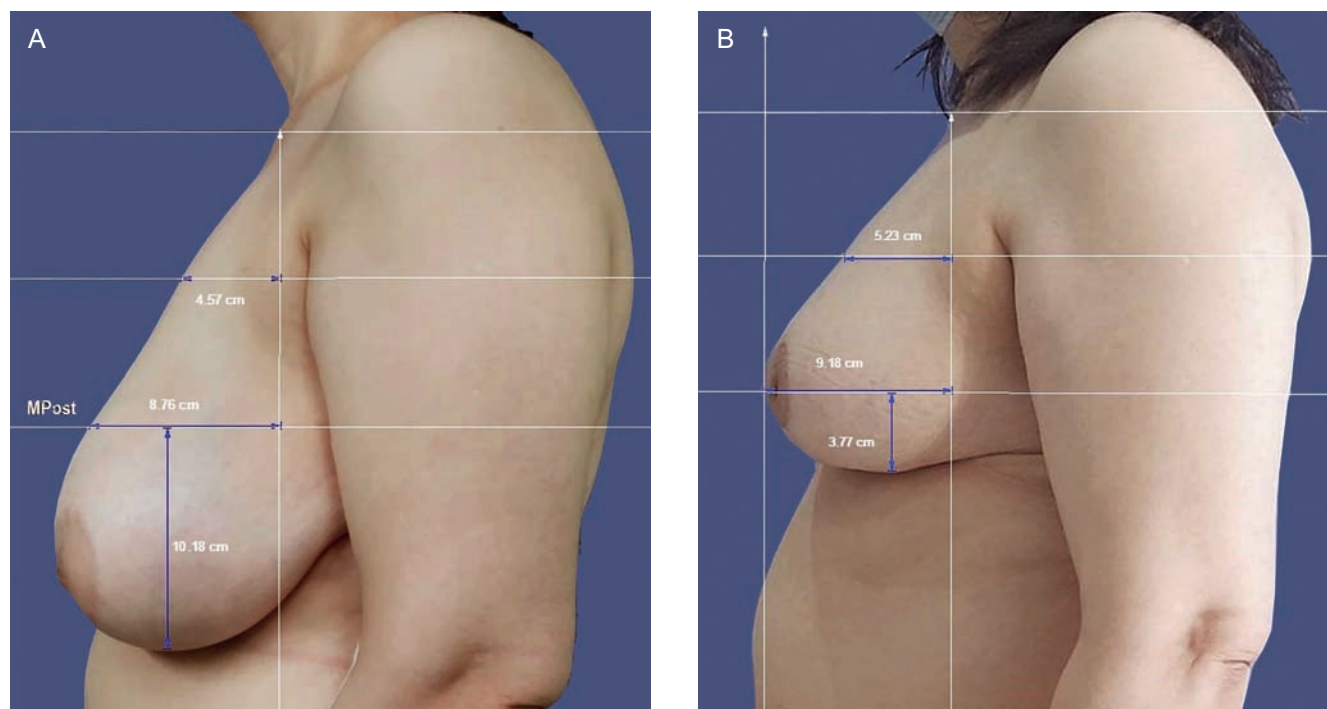


Figure 1. This 56-year-old woman presented before (A) and 15 months after (B) a supero-septum pedicle mammaplasty by vertical incision. Nipple-to-sternal notch distance of the left breast was 30 cm and 31 cm for the right. Tissue resection from the left breast was 590 g and 615 g from the right. These photos underwent photometric evaluation of upper pole projection and maximum postoperative breast projection of the breast with Canfield Mirror Version 7.5.6 software (Canfield Scientific Inc., Fairfield, NJ) for comparison of preoperative and postoperative photos according to Dr Swanson's method.

pre- and postoperative was 15 months (not 6 months) (Figure 1).

As for breast size and postoperative projection, due to cultural issues many of our patients request maximum breast reduction; although this is an advantage of our surgical method that we can significantly reduce the breast, it will negatively affect the projection or MPBP. Now the question remains if we can utilize this photometric method to evaluate the surgical results of all patients, or should we define a separate index for UPP? We suggest dividing the distance between the supra-mammary border (or, for easier determination, it is equivalent to the anterior axillary fold) and MPBP by one-half (instead of the distance between the sternal notch and MPBP) (Figure 2). The anatomy and breast footprints differ between low-breasted and high-breasted patients, and no surgical procedure can considerably elevate or superiorly relocate the footprint.

Considering the findings of Rehnke et al, there is abundant fat and almost no corpus mammae tissue between the superficial layer of superficial fascia and the deep layer of superficial fascia (Figure 1 above).⁸ Thus, weight fluctuations will affect the projection of this area and will not be an acceptable index on its own.

We stated: "One of the important predictive factors affecting breast shape and probability of bottoming out

is the length ratio of the inframammary fold-nipple (IMF-N) to supra-mammary fold-nipple in the bending view (Supplemental Figure 1). A length ratio >1 negatively affects the result. This ratio seems better than the ratio of IMF-N to N-SN, because the anatomical difference of high- or low-breasted chests has not been observed in the IMF-N to N-SN ratio."²

On the other hand, we were requested to remove the results of less than 1 year from our study,² whereas Figure 2 in Dr Swanson's study is a 6-month postoperative image;¹ comparing it to 1 year postoperative would be questionable.^{4,6} Dr Swanson denies the existence of septum, quoting the Matousek study: "Matousek et al were unable to replicate Würinger's septum in their cadaveric dissections and cautioned that its existence is likely artefactual, created by the dissection itself."¹ Matousek explains cadaveric dissections: "while there was a thin structure visible transmitting neurovascular supply to the breast in the specimen, there was no distinct septum dividing the breast superiorly and inferiorly."⁹

Moreover, the existence of septum has been negated, as in Rehnke: "Rehnke et al also failed to identify a horizontal septum dividing the breast. Instead, these authors describe a 3-dimensional "circummammary ligament."¹ Although Rehnke believes there is a curved ligamentous

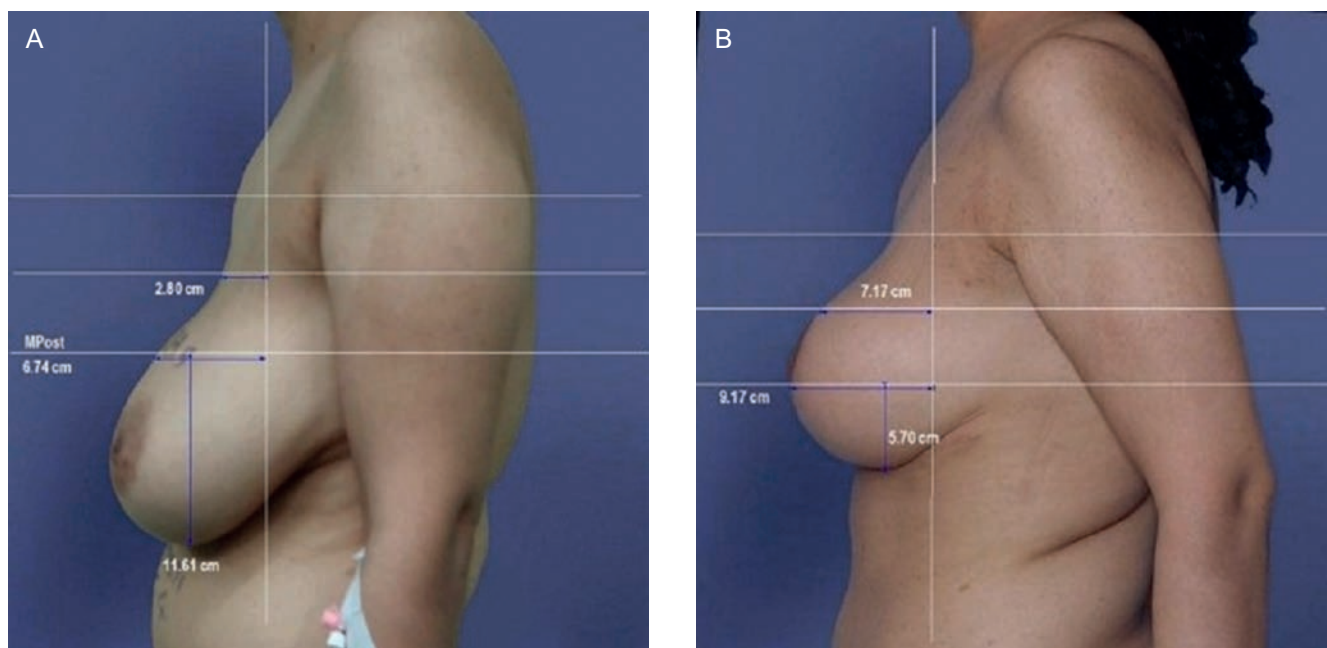


Figure 2. This 32-year-old woman presented with low-footprint and ptotic breasts with low-quality soft tissue before (A) and 1 year after (B) a supero-septum pedicle mammoplasty. Nipple-to-sternal notch distance of the left side was 29.5 cm. Her new nipple position after a 500-g glandular resection was 21 cm, postoperative photo after 12 months. Photometric evaluation of upper pole projection and maximum postoperative breast projection of the breast with Canfield Mirror Version 7.5.6 software (Canfield Scientific Inc., Fairfield, NJ) for comparison of preoperative and postoperative photos according to our suggested method. For measurement of upper pole projection, we drew a vertical line from the sternal notch, as Dr Swanson, then after determining maximum postoperative breast projection we utilized the anterior axillary fold (equivalent to supra-mammary border) as a landmark instead of the sternal notch and bisect the distance between the anterior axillary fold to maximum postoperative breast projection.

tissue in the breast on the mentioned spot: “We are in agreement about the existence of a fascial ring around the breast, which the neurovascular supply to the breast crosses.”⁸ Regardless of nonsignificant differences in the shape and tissue details of septum in cadaveric dissections of researchers, including Wuringer,¹⁰ Matousek et al,⁹ and Rehnke et al,⁸ the important point is that the neurovascular bundles travel from the fourth and fifth intercostal space towards the nipple-areola complex. Hence, its preservation will improve nipple-areola complex neurovascular supply. As depicted in our 1B image,² a transverse septum-like feature is visible in living tissue dissection containing nerves and vessels.

Breast spans second to sixth intercostal space.¹¹ Because the caudal part contains more tissue compared with the upper pole due to its greater width and the curved shape of the T incision, tissue resection of one intercostal space in this area can easily remove much more than 20% and sometimes 30% of breast tissue, so this is not a small portion. Obviously, the nerve travels from the intercostal space to the nipple-areola complex, and its course is naturally different in standing and supine positions. During the surgery, the patient is completely flat, so the breast is kept perpendicular to the chest wall while resecting the

inferior segment and the tissue caudal to the septum is removed. Thus, the nerves and vessels are easily preserved (Figure 1B).²

In small and medium breasts where the vertical technique is utilized (Dr Hall-Findlay recommends the technique for these 2 groups as well as younger patients),^{6,7} the sensation with the medial pedicle technique is favorable.¹² But in larger breasts where we need to resect more tissue, the fourth intercostal branch, namely the main branch for nipple sensation, will be severed.

It has been mentioned that “Central mound techniques isolate the nipple/areola complex on a parenchymal base.”¹ Although we noted at the beginning of the article that more than 100 techniques have been reported, naturally these techniques have slight or major differences and similarities. So the reason for comparing the SSPM technique and the Central Mound technique is not clear. As admitted by Dr Swanson, there are obvious differences between the 2 techniques. The SSPM technique has the descending branch of the second intercostal just as with the classic superior pedicle technique. In medial pedicles requiring limited resection, the positive points including functions of the deep branch of the fourth nerve as well as lactation will be preserved, but in larger breasts, we need

to make greater resection of the tissue posterior to the nipple-areola complex to facilitate pedicle rotation, so the possibility of lactation and functionality of the deep branch of the fourth intercostal will be markedly diminished.

The author mentions, "Sutures anchoring breast tissue to the pectoralis fascia have been shown to be ineffective."¹ As we explained in the article,³ our sutures in mammoplasty are not meant to move the breast cephalically, and we do not expect the sutures to do so. We totally agree that we cannot push the tissue up by means of sutures.

"We also make a tongue near the pectoralis fascia attached to the lateral pillar and suture this through the tunnel under the superior pedicle to the medial pectoralis fascia over the third intercostal space, without taking it higher or lower in the horizontal direction. This has 2 goals: (1) decreasing lateral fullness, and (2) keeping the upper-pole tissue in place. As this tongue is not in an antigravity position, it will not descend over time."³

To decrease the future possibility of bottoming out, we suture the tissue close to the septum to the fascia, maintaining a distance of 4 to 6 cm from the fascia so there will be enough room for projection from the suture point to the nipple-areola complex, which is depicted in the caudal view on the table (Supplemental Figure 3D).² To further investigate bottoming out, we will definitely perform the study with mean postoperative time of at least 5 years, though at present the photos of the patients operated more than 5 years ago confirms this point.

Dr Swanson said "Shape improvements after vertical mammoplasty are known to persist at 10 years, with minimal lower pole descent."¹³ With all due respect, the mentioned values and photos are ambiguous in some parts. How is it possible that UPP decreases to 3.47 per year after surgery and increases again? Secondly, if the MPBP is 7.82 in the third postoperative month and 7.09 in the first year, how will it increase and decrease to the tenth year and finally at the end of the tenth year reach a value greater than it was at the third month and first year? Has there been a revision or fat injection at the end of the first year to increase projection? Has weight fluctuation been the possible causative factor of these changes? In none of the above, what could be the reason? Does it mean that the photometric method is not 100% accurate and reliable for evaluation of photos, and multiple confounding factors—including breast anatomy and weight fluctuations—can interfere? Dr Swanson said "By insisting on standardized photographs, we can quickly 'cut to the chase' and assess for ourselves any claims of superiority. Technical points are meaningless if the method fails to perform."¹ We will evaluate the standard photographs by means of photometry and other modalities and will correctly utilize scientific data.

Disclosures

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REFERENCES

1. Swanson E. The supero-septum pedicle mammoplasty: how does it perform? *Aesthet Surg J*. 2021;41(7):NP986-NP989.
2. Hesamirostami M, Sarparast L, Bateni H, Kazemi Ashtiani A. Supero-Septum pedicle mammoplasty: a new modification for reduction mammoplasty. *Aesthet Surg J*. 2020;40(10):1080-1095.
3. Hesamirostami M, Sarparast L, Bateni H, Kazemiashtiani A. Commentary on: Superoseptum pedicle mammoplasty: a new modification for reduction mammoplasty. *Aesthet Surg J*. 2021;41(4):NP139-NP141.
4. Hamdi M, Van Landuyt K, Tonnard P, Verpaele A, Monstrey S. Septum-based mammoplasty: a surgical technique based on Würinger's septum for breast reduction. *Plast Reconstr Surg*. 2009;123(2):443-454.
5. Nahai FR, Nahai F. MOC-PSSM CME article: breast reduction. *Plast Reconstr Surg*. 2008;121(1 Suppl):1-13.
6. Hall-Findlay EJ. The three breast dimensions: analysis and effecting change. *Plast Reconstr Surg*. 2010;125(6):1632-1642.
7. Hall-Findlay EJ. Breast reduction: the medial pedicle technique. In Nahai F, ed. *The Art of Aesthetic Surgery: Principles and Techniques*. 2nd ed. St. Louis, MO: Quality Medical Publishing, Inc.; 2011:2443-2483.
8. Rehnke RD, Groening RM, Van Buskirk ER, Clarke JM. Anatomy of the superficial fascia system of the breast: a comprehensive theory of breast fascial anatomy. *Plast Reconstr Surg*. 2018;142(5):1135-1144.
9. Matousek SA, Corlett RJ, Ashton MW. Understanding the fascial supporting network of the breast: key ligamentous structures in breast augmentation and a proposed system of nomenclature. *Plast Reconstr Surg*. 2014;133(2):273-281.
10. Würinger E. Refinement of the central pedicle breast reduction by application of the ligamentous suspension. *Plast Reconstr Surg*. 1999;103(5):1400-1410.
11. Larson JV, Nelson ME, Sener SF, Patel KM. Breast anatomy for plastic surgeons. In: Neligan PC. *Plastic Surgery, Breast*. 4th ed. Toronto, Canada: Elsevier; 2018:1-14.e1.
12. Landau AG, Hudson DA. Choosing the superomedial pedicle for reduction mammoplasty in gigantomastia. *Plast Reconstr Surg*. 2008;121(3):735-739.
13. Swanson E. Photometric evaluation of long-term changes in breast shape after breast augmentation and vertical mammoplasty. *Plast Reconstr Surg Glob Open*. 2018;6(6):e1844.